

In the Claims:

1-20. (Canceled)

21. (Currently Amended) A semiconductor structure comprising:

a substrate;

two electrically conductive structures over the substrate, a subarea between the two electrically conductive structures being free of material;

a ~~single layer of homogenous material containing~~ including a compound comprising silicon, oxygen and nitrogen overlying the two electrically conductive structures;

an intermediate layer comprising an electrically insulating material overlying the layer of material containing silicon, oxygen and nitrogen; and

a covering layer overlying the intermediate layer and the subarea between the two electrically conductive structures such that the subarea comprises a material-free area that is sealed from the environment.

22. (Currently Amended) The semiconductor structure as claimed in claim 21, wherein the ~~single layer of homogenous material containing~~ including a compound comprising silicon,

oxygen and nitrogen comprises ~~Si_{1.00}O_{1.90}H_{0.27}C_{0.045}N_{0.06}~~ Si_{1.00}O_{1.90}H_{0.27}C_{0.045}N_{0.06}, wherein each of the index numbers (1.00, 1.90, 0.27, 0.045, 0.06) is variable by 20% upwards or downwards.

23. (Previously Presented) The semiconductor structure as claimed in claim 21, wherein the two electrically conductive structures comprise copper structures.

24. (Previously Presented) The semiconductor structure as claimed in claim 21, wherein the material-free area comprises an airgap.

25. (Currently Amended) The semiconductor structure as claimed in claim 21, wherein the ~~single layer of homogenous material containing~~ including a compound comprising silicon, oxygen and nitrogen has been formed by a plasma-enhanced chemical vapor deposition process with nitrogen material being supplied during the supply of silicon material and oxygen material by means of an organic silicon precursor material.

26. (Previously Presented) The semiconductor structure as claimed in claim 21, wherein the intermediate layer is formed from silane-based silicon oxide.

27. (Previously Presented) The semiconductor structure as claimed in claim 21, wherein the covering layer comprises silicon oxide.

28. (Previously Presented) The semiconductor structure as claimed in claim 27, wherein the covering layer is formed based on ozone-activated decomposed tetraethyl orthosilicate.

29. (Currently Amended) A method for producing a layer arrangement, the method comprising:

forming a ~~single layer of homogenous material~~ including a compound comprising silicon, oxygen, and nitrogen over a substrate that has a plurality of electrically conductive structures and/or over a part of a surface of the electrically conductive structures, the ~~single layer of homogenous material~~ including a compound comprising silicon, oxygen, and nitrogen being formed using a plasma-enhanced chemical vapor deposition process with nitrogen being supplied

during the supply of silicon and oxygen by means of an organic silicon precursor material, the ~~single layer of homogenous material~~ including a compound comprising silicon, oxygen, and nitrogen being formed in such a manner that an area free of material remains between the electrically conductive structures;

forming an intermediate layer comprising an electrically insulating material over the ~~single layer of homogenous material;~~ including a compound comprising silicon, oxygen, and nitrogen; and

selectively forming a covering layer over the intermediate layer such that the area free of material between the electrically conductive structures is sealed from the environment and forms a cavity.

30. (Currently Amended) The method as claimed in claim 29, wherein the ~~homogenous material~~ layer including a compound comprising silicon, oxygen and nitrogen comprises $\text{Si}_{1.00}\text{O}_{1.90}\text{H}_{0.27}\text{C}_{0.045}\text{N}_{0.06}$ $\text{Si}_{1.00}\text{O}_{1.90}\text{H}_{0.27}\text{C}_{0.045}\text{N}_{0.06}$, wherein each of the index numbers (1.00, 1.90, 0.27, 0.045, 0.06) is variable by 20% upwards or downwards.

31. (Canceled)

32. (Currently Amended) A semiconductor structure comprising:

two electrically conductive structures over a substrate, a subarea between the two electrically conductive structures being free of material;

a layer ~~of material containing~~ including a compound comprising silicon, oxygen and nitrogen overlying the two electrically conductive structures, wherein the layer ~~of material containing~~ including a compound comprising silicon, oxygen and nitrogen comprises

$\text{Si}_{1.00}\text{O}_{1.90}\text{H}_{0.27}\text{C}_{0.045}\text{N}_{0.06}$; $\text{Si}_{1.00}\text{O}_{1.90}\text{H}_{0.27}\text{C}_{0.045}\text{N}_{0.06}$, wherein each of the index numbers (1.00, 1.90, 0.27, 0.045, 0.06) is variable by 20% upwards or downwards;

an intermediate layer comprising an electrically insulating material overlying the layer of material containing silicon, oxygen and nitrogen; and

a covering layer overlying the intermediate layer and the subarea between the two electrically conductive structures such that the subarea comprises a material-free area that is sealed from the environment.

33. (Previously Presented) The semiconductor structure as claimed in claim 32, wherein the two electrically conductive structures comprise copper structures.

34. (Previously Presented) The semiconductor structure as claimed in claim 32, wherein the material-free area comprises an airgap.

35. (Previously Presented) The semiconductor structure as claimed in claim 32, wherein the layer of material containing silicon, oxygen and nitrogen has been formed by a plasma-enhanced chemical vapor deposition process with nitrogen material being supplied during the supply of silicon material and oxygen material by means of an organic silicon precursor material.

36. (Previously Presented) The semiconductor structure as claimed in claim 32, wherein the intermediate layer is formed from silane-based silicon oxide.

37. (Previously Presented) The semiconductor structure as claimed in claim 32, wherein the covering layer comprises silicon oxide.

38. (Previously Presented) The semiconductor structure as claimed in claim 37, wherein the covering layer is formed based on ozone-activated decomposed tetraethyl orthosilicate.